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Care of Your Electric Motor

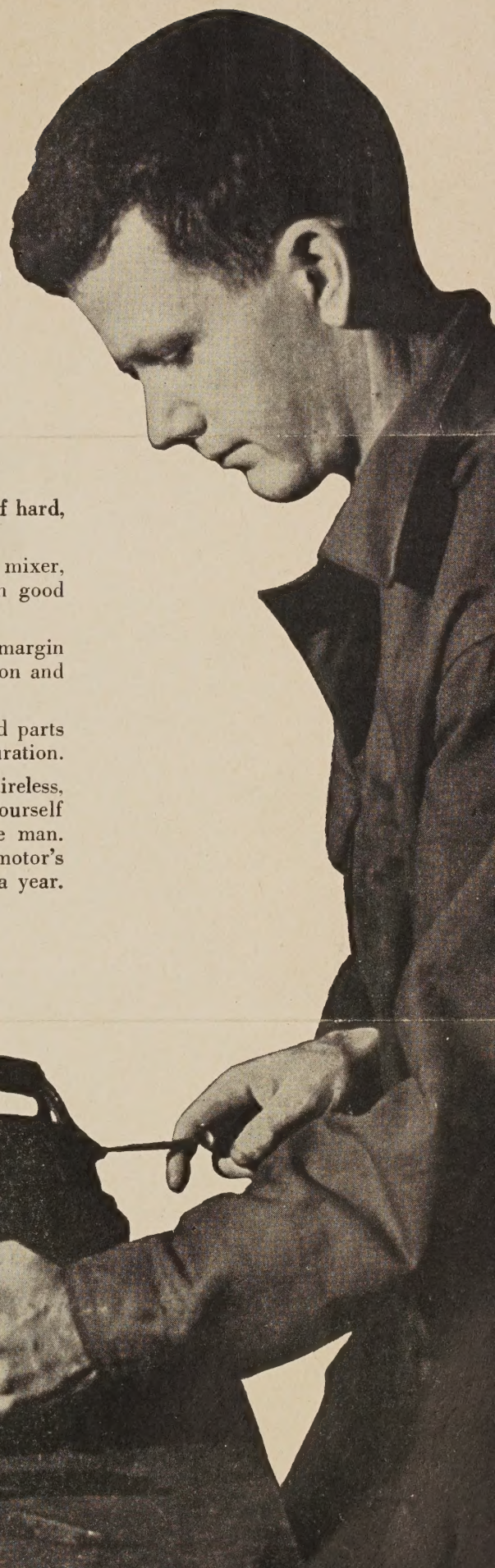
Your electric motor stands between you and many hours of hard, time-consuming work.

It can run your drill press, churn, feed grinder and feed mixer, and many other appliances; enable you to keep your tools in good repair, and do scores of other tasks on your farm.

In fact, your motor may provide just the labor-saving margin that will put your farm over the top in the 1943 food production and processing drive. Set it to working overtime for Uncle Sam.

Yet, it's wise to remember that replacements for motors and parts are hard to get—that your present motor must last for the duration.

Yes, in wartime more than ever, your motor must be a tireless, dependable worker. It will be—IF you care for it properly yourself and see that it is inspected regularly by a competent service man. Consult your service man whenever you are in doubt about your motor's functioning, and be sure he inspects your motor at least once a year. It pays not to delay.



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WIPE OUT THESE THREE

Dust Moisture Excess Oil

This trio can destroy your motor and thus sabotage your farm production. Working their way into your motor's parts, they can do as much damage as an Axis spy in a war factory.

Watch for Dust

Dust in your motor bearings or in the oil which lubricates its bearings can be as abrasive as emery powder. It sifts into your motor every second the motor is working.

Dust fills up open spaces in the windings, preventing proper ventilation and thus causing the motor to overheat and burn out.

Dust quickly unites with moisture and excess oil to form a gummy substance that is hard to remove.

Dust works fast—catch it before it starts its dirty work!

Watch for Excess Oil.

Proper and regular oiling of your motor bearings is essential to the life of any motor. But oil elsewhere in or on your motor is a dangerous saboteur.

Besides uniting with dust to smother proper ventilation, excess oil destroys the insulation and causes your motor to burn out.

Watch for Moisture.

Keep your motor as dry as possible. Make every effort to keep it where water cannot drip on or flood it. Unless your motor is of splash-proof design, be sure also that water does not splash on it.

Keep your portable motor in a dry building when not in use.

If your motor becomes wet, make sure it is dried out by your service man.

Watch for—

Smoking or overheating. Excessive sparking at brushes. Charred insulation. Excessive hum.

These are danger signals. If any of them occur, don't hesitate to consult your motor service man. It will pay you not to delay.

CAUTION: The purpose of this leaflet is to indicate to the motor owner the points at which his motor needs care. It is *not* intended as an instruction guide.

Motors differ considerably in design, and in the degree to which their working parts are accessible for cleaning and maintenance. Removal of the end bells is necessary for the cleaning of many types of motors, particularly those of newer design. This is a major undertaking involving the future efficient operation of many parts requiring critical care and assembly, and should only be attempted by those *thoroughly* familiar with it.

Follow These Tips.

Install your motor where it can be oiled and inspected regularly.

Follow the manufacturer's directions on lubrication of your motor.

Check the oil level in the bearings regularly.

Keep slip rings and commutators free from oil (see "Caution" paragraph).

Keep oil filler caps tightly closed and replace hard, dirty wicking. Blow out dust and moisture once a week from the wound sections of your motor with a tire pump or hand bellows, if dust conditions are bad.

Keep the motor shaft free from oil and grease (see "Caution" paragraph).

Wipe off excess oil from the outside of your motor.

If moisture, excess oil, and dust still remain, have your service man remove it with a special solvent and dryer. This is particularly urgent if it has accumulated for a long time.

General Suggestions.

Misalignment is a saboteur of your motor, too. Your motor and the machine it drives must be in proper alignment, whether they are direct-connected or belted. Misalignment and too tight a belt on your motor will cause its bearings to wear unevenly, and eventually wear them out.

Overloading is dangerous. Motors cannot be operated safely if they carry too great a mechanical load, or if there is excessive friction. A thermal element in the power circuit of some motors affords protection against overloading. This element shuts off the motor when overloading occurs, and the switch must be flipped on to restart it.

Be sure to replace burned-out fuses in your service box with new ones of the proper size. Do not by-pass them to keep the motor running—this is a quick way to burn out your motor. If fuses or elements burn out frequently, have your repair man check for overload conditions or other troubles.

Be on the alert for the first signs of motor trouble. Prompt attention and repair will prevent serious damage.

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